

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
CHEM-427	Inorganic Chemistry (Sp. Practical)	2	VIII
Year	Discipline		
4	Chemistry		

SYLLABUS OUTLINE:

1. Chromatographic Techniques:

- Column and thin layer techniques for the qualitative analysis of inorganic compounds.
- Applications of solvent extraction and ion exchangers technique.

2. Instrumental Methods of Analysis:

- Potentiometry:
 - Determination of K_1 , K_2 and K_3 for H_3PO_4
 - Determination of Cobalt (II)
 - Determination of iron (II)
 - Determination of chloride in presence of iodide and evaluation of K_{sp} for AgI and AgCl.
- Thermal analysis
Decomposition studies of the following substances:
 - Copper sulphate penta hydrate
 - Calcium oxalate monohydrate
- Atomic absorption spectroscopy
Estimation of following:
 Mg^{2+} , Zn^{2+} , Al^{3+}

RECOMMENDED BOOKS:

- J. Bassett, R. C. Denny, G. H. Mendham, Vogel's Text Book of qualitative Inorganic Analysis, the English Language Book Society and Longman, New York, (2008).
- Quantitative Analysis Chemistry, James S. Pritz, George H. Sehenk, 2001 Alby and Becon Inc. London.
- Theory and practice of chromatography by Prof. Dr. Javed Iqbal (2002).
- Instrumental analysis by Gary D. Christian and James E.O., Reilly, 2007, Allyn and bacon Inc., London.
- Hand Book of Organic reagents in Inorganic Analysis by ZAVIX Holzbecher and other 1976 Ellis Hurwod Limited, London.
- Experimental Inorganic Chemistry - W. G. Palmer, 2005.
- The analysis of minerals and ores of the rarer elements – W. R. Schoeller, and A. R. Powell, Charles, Griffin and Company Limited, 2004.